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BEE JOURNAL

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

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Mr. F. A. Gemmill's Apiary, located at his home in Stratford, Ont., is shown in a beautiful picture covering a whole page of last *Gleanings*. Bro. Gemmill uses a plan worthy of general adoption, in that he has each hive "named after some prominent bee-keeper in the United States and Canada," instead of numbering them. For instance, on the hives may be seen, in neatly printed letters, these names: Father Langstroth, Huber, Dzierzon, Quinby, Doolittle, A. I. Root, Pringle, Clarke, Jones, Dr. Miller, Alpaugh, etc. The apiary contains 72 colonies, and one especially prized hive (an observatory) was made for Mr. G. by Father Langstroth in 1863; it occupies a prominent position, and "it has contained bees continuously ever since — nearly 30 years." Mr. Gemmill's family are also shown in the very life-like picture, making, all together, a most pleasing sight.

California Bee-Legislation.—Mr. W. A. Pryal was selected by the California State Bee-Keepers' Association to formulate several Bills to be presented to the State Legislature in the interest of bee-keeping.

Three Bills were introduced. One of them was to prohibit the spraying of fruit-trees with poisonous insecticides; the second Bill made it a misdemeanor to maliciously kill honey-bees belonging to another; and the third was for an appropriation of the State funds sufficient to pay for the printing of the proceedings of the California State Bee-Keepers' Convention, and the printing of such other information that will promote the apicultural industry in the Golden State.

It seems that the Bill to prevent spraying fruit-trees while in bloom, with Paris-green, etc., was referred to the Committee on Agriculture, and that committee "knocked it out." The committee contained some fruit-growers, who claimed that it was better to injure the bees, as the fruit interests of the State far exceed that of the honey industry. Had Mr. Pryal been present, he could easily have shown them that the proper time to spray trees is not when they are in bloom; and he also would have tried to prove to them that human lives are more valuable than the few fruits that might be saved by the untimely use of insecticides! It is strange that fruit-growers will ignorantly work against their best friends, the bees!

The Appropriation Bill gave promise of faring better, and Mr. Pryal had assurances that it would in all probability be passed, as the sum asked for ($300) was so modest that no one could very well object to it. At this writing, however, we have not heard the final result.

Bro. Ernest R. Root, the excellent editor of *Gleanings*, is "all 'broke up;'" and the cause of it is the biographical sketch and portrait of himself on page 299 of the BEE JOURNAL. Here is what he said about it in *Gleanings* for March 15th:

> We are all "broke up." We have been sitting before the desk trying to scribble off an editorial, as it was one of the kind that wouldn't "dictate." We've got something to

say, but for the life of us we don't know how to say it, or whether, indeed, we ought to say anything at all. We refer to some kind, very kind things said of us in a biographical sketch, accompanied by a good portrait, in the AMERICAN BEE JOURNAL, of your humble servant. We seriously fear we do not deserve all of it; at all events we tender our awkward "thank you," and in the meantime will try to ward off that peculiar insidious malady that sometimes affects young men—the "big head."

We are just excrutiatingly sorry if we published anything about our Bro. Root that can't be proven true. We hope he will forgive us this time, for our "motives" were certainly in a healthy condition, and we'll promise not to do it again, or at least not until we get another good chance.

We don't believe in saving up all the flowers or kind words until a funeral calls them out. Why not bestow them while they can be appreciated, instead of waiting until our friends have passed away forever? A single word of encouragement given *now*, will be worth whole dictionaries of memorial resolutions. We shall all pass this way but once, and ought to do all the good we can while we have the opportunity.

The Kansas State Bee-Keepers' Association will meet in Ottawa, Kans., on April 6th and 7th, and the following is the programme:

FIRST DAY.

Address by President.
Bee-Keeping in Kansas.
Different Races of Bees.
Economy in Bee-Keeping.
Bees and Horticulture—Their Relations.

SECOND DAY.

The Subject of Hives, by Mr. P. Shaub, of Olathe.
Best Methods of Producing Comb Honey.
Best Methods of Producing Extracted Honey.
Ups and Downs of Bee-Keeping.
Exhibit at the World's Fair, and What Shall We Do About It?
The Different Honey-Plants of the State of Kansas.

Chanute, Kans. L. WAYMAN, *Sec.*

Bee Journal at the Head.—Mr. Hasty began his "Condensed View" in the March *Bee-Keepers' Review* with this question: "How many words of reading matter, by actual count, did the several journals place before their January readers?" He then proceeded to a comparison of the number of words of reading matter in the January issues of eight bee-papers, and here is the result in an interesting table:

	Bee Matter.	Total Reading.
American Bee Journal	58,675	Same.
Gleanings	42,229	64,685
Canadian Bee Journal	24,254	Same.
Guide	16,566	18.316
Review	15,099	16,836
Apiculturist	9,205	Same.
American Bee-Keeper	7,093	7,770
Progressive Bee-Keeper	5,959	Same.

Should Mr. Hasty make a comparison of the March numbers of the same papers, we think there would be a still greater showing in favor of the AMERICAN BEE JOURNAL, as we have five issues this month, while in January there were only four. Our nearly 60,000 words contained in four numbers would make about 15,000 words per week, or for the extra issue of this month; then averaging this number of words among the three months of the quarter, would give about 5,000 more words to be added to January, or in all we print nearly 64,000 words of reading matter in one month, *all* devoted to bee-keeping. At this rate, we place before our readers in one year about 750,000 words, and all for $1.00.

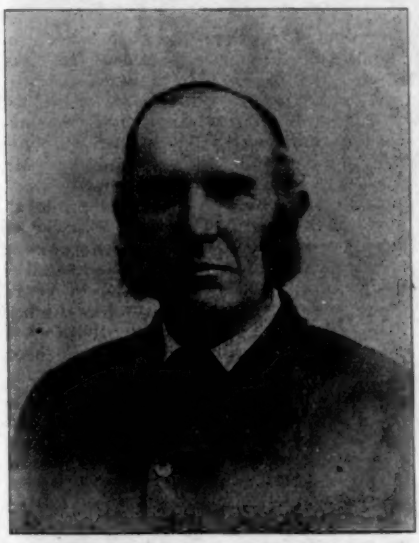
Bee-Paralysis is thus written about by Mr. J. A. Golden, of Reinersville, O., in *Gleanings* for March 1st:

SYMPTOMS OF BEE-PARALYSIS.—In my experience and study of bee-paralysis, I find that the first symptoms of the disease are first noticeable, so far as we have been able to judge, by the guard-bees at the entrances attacking the diseased sisters with a hustling movement as they go and come; and the diseased bee, in this stage, seems to enjoy this kind of treatment; and this indicates, to my mind, that the bee is feverish—a condition that produces an itching sensation, also causing the hair to loosen, and to be easily extracted by the bees in the hustling movement, as above stated. I also find that, when bees reach the second stage, or hairless condition, the guard-bees are more determined to drag them from the hive than at any other time. Further observations teach us that, as soon as the bee begins to bloat, she immediately leaves the hive, and soon expires.

HOW TO CURE.—As soon as the bees begin to fly freely, make a strong brine and thoroughly wet the bottom-boards of these hives once a week, so that, when they dry, they will look frosty; also freely spray the combs and brood with a solution of salt water that you can taste quite a little salty (not strong), once a week, during the season, then report the result; and if you don't forget to apply the remedy, I am sure your report will be in favor of salt.

WILLIAM M'EVOY.

Prof. Thomas Shaw, of the Ontario Agricultural College, has kindly furnished the following sketch of Mr. William McEvoy, the well-known Foul Brood Inspector for the Province of Ontario,



WILLIAM McEVOY.

Canada. Mr. M. is the first Canadian bee-keeper that we have presented in our biographical department since making it a weekly feature of the BEE JOURNAL. His many friends across the line, as well as those on this side, will read with much pleasure this sketch of his life, and the description of his work in the interest of bee-keeping. Prof. Shaw writes thus:

The country is a grand place in which to commence life. If our young people could be made to see this truth in its true light, fewer of them would ever leave it for the more or less precarious existence of the towns and cities. Nearly all of those who make their mark in life, have been cradled in country homes, and the subject of the present sketch is no exception.

William McEvoy was born in the county of Walton, in the Province of Ontario, in the year of 1844. Some years previously his parents had emigrated from Ireland, and while William was still quite young, they took up their abode in Woodburn—a beautiful little country village in the county of Wentworth, where his father fell a victim to the cholera scourge in 1854. Mr. McEvoy, who has lived in Woodburn ever since, was thus thrown at an early age upon his own resources, and, to use his own expression, has virtually had "to paddle his own canoe" ever since. His early education was therefore of the most rudimentary kind. The chasing of butterflies through the happy, livelong summer days, with the writer and other village lads, and the daily summer visits to "Twisses" big raspberry patch, had to give place all too soon to labor for the farmers in the neighborhood.

It was fortunate for Mr. McEvoy, that while yet a lad, he engaged for two or three seasons in succession with Mr. William McWaters, one of the neatest and most successful farmers of that part of Ontario. The example of neatness and painstaking shown by Mr. McWaters, left a life impression upon Mr. McEvoy, who, from that time to the present, has allowed no work to pass through his hands which was not done in the best form. He soon became expert in handling the plow, and other farm tools.

But it was in connection with the bee-industry that Mr. McEvoy was to make the great discovery which was to bring him fame in bee-circles, wherever the Anglo-Saxon tongue is spoken—I refer to his discovery of the cause and cure of "foul brood." For this discovery, and for the success which has attended his efforts in destroying it in the Province, Mr. McEvoy is deserving of the gratitude of his countrymen, and has rendered magnificent service to the bee-keeping industry for all time.

These great results, as is frequently the case, have grown out of very small beginnings. In 1864, Mr. McEvoy bought two old box-hives with the bees in them, from a farmer in the neighbor-

hood. In payment thereof he cut twenty cords of wood—beech and maple—on a piece of land which has since come into the possession of the writer. Soon after, he tried frame hives of various kinds, but with the result in the end that they were finally used for kindling wood.

The indomitable perseverance of Mr. McEvoy is well brought out by the following incident: The use of the extractor had been employed some before he had even come in contact with it. The writer informed Mr. McEvoy of one he had seen in use in Kilbride—a village 30 miles distant. He at once perceived the advantage it would be to him in his business, and promptly set off to see it working. He came back exultant over the knowledge he had gained, after a journey of 60 miles on foot.

The two box-hive colonies have long since multiplied to a number beyond which Mr. McEvoy does not care to go. He has labored to prevent increase rather than to encourage it, as his present duties will only allow him to give personal attention to but a limited number of colonies, of which he has about 90 at the present time.

Mr. McEvoy commenced exhibiting honey and wax at the exhibition in 1868. He was a prominent exhibitor at the leading Fairs of the Province until 1886. During those 18 years he was the greatest success as an exhibitor ever known in this country, or perhaps in any other. He was successful on every occasion except one, viz.: at one of the Provincial exhibitions, where he lost the award through incapable judges, who had been hurriedly chosen in the absence of the regularly appointed judges.

In 1875 the dreaded scourge—foul brood—originated in Mr. McEvoy's own apiary at Woodburn. He at once set to work to discover the cause and cure, and in both was triumphantly successful. This is unquestionably the most valuable discovery of modern times in reference to the apiary. The ablest scientists in the bee-keeping world had been laboring earnestly to get at this root of the great bee-scourge, but in vain, and when Mr. McEvoy first gave his discovery to the world, by those best versed in bee-lore, it was received with cold scorn. Mr. McEvoy was not a writer, nor a speaker, and he had always lived in Woodburn, an obscure country village of about 100 souls. It was incredible that so valuable a discovery could emanate from such a source! But in the wonderful success that has attended Mr. McEvoy's efforts to stamp out foul brood in all Ontario, we find the most fitting answer to the uncharitable criticisms of those selfish days.

In 1881 he gave the essentials of his discovery to *Gleanings in Bee-Culture*, but the article never appeared. In 1884 his methods of dealing with the plague appeared in the January number of the Canadian *Live Stock and Farm Journal*, then under the editorial management of the writer. This was the first time that Mr. McEvoy's opinions on this question appeared in print. It was announced beforehand that the February number of the *Bee-Keepers' Review*, of 1890, would contain only articles on "Foul Brood." Mr. McEvoy, with great pains and labor, forwarded a summary of his methods, but on the principle, I suppose, that no good thing could come out of Woodburn, the article was suppressed.

In 1890 he was appointed Foul Brood Inspector for Ontario, and has held the appointment since that time. The wisdom shown in the appointment has been more than justified in the grand results that have been realized. The fell disease, though not exterminated, has been smitten, hip and thigh, wherever Mr. McEvoy has gone. He justly feels proud of the fact, that in the wholesale cures that have been effected under his supervision, the work has been done in the hives in which the diseased colonies were found, and never in his 17 years' experience with the scourge has he had to scald, boil or otherwise disinfect a hive from which foul brood had been dislodged.

At the bee-keepers' convention held in London, Ont., in January, 1892, Mr. McEvoy drew attention to the fact that bees were being destroyed, wholesale, by the needless spraying of fruit-trees with poisonous liquids when in bloom. He succeeded in getting a committee appointed to lay the matter before the Ontario Legislature. The result was, that an Act was passed the same year, prohibiting the senseless and exceedingly injurious practice of spraying trees with poisonous liquids when in bloom.

It is not surprising, therefore, that Mr. McEvoy should be regarded on all hands as standing in the front rank amongst living authorities on all practical questions relating to the bee-keeping industry. The great discoveries which he has made is another instance of the success which is sure to follow patient investigation, combinedwith untiring industry in any line. THOMAS SHAW.

CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

Greatly Encouraged with Prospects.

We feel greatly encouraged with the present prospects for a spring crop, as our bees have come through without any losses whatever, and are strong colonies. As we are having some fine weather, queen-rearing is in full blast.

We (I, for one) would be glad to meet some of the old veteran bee-keepers of other States than our own, at our meeting at Mrs. Atchley's, in Greenville, on April 5th and 6th. We expect to have an interesting time. W. H. WHITE.

Deport, Tex., March 9, 1893.

Bee-Diarrhea and Its Treatment.

MRS. ATCHLEY:—Here I come, in trouble again. I examined my bees a few days ago, and found that one colony, where I put in a fine queen last fall, had gone down to almost nothing. It was one of my strongest last fall, and I thought it was so yet, but I find the bees dying off rapidly, and their combs all covered with a yellow, bloody-looking stuff, and they are dwindled down to a mere handful. On examining further, I find another colony affected too. What is the matter? What must I do with them? F. B. EFIRD.

Winston, N. C., March 1, 1893.

Friend Efird, you have a clear case of bee-diarrhea, or spring dwindling, and I would advise you to clean up the sick-rooms, give them a new, clean hive, and feed them; uncap what honey they have so as to stimulate them to activity as soon as possible, and if they are reduced so they are not strong enough to cover a common-sized brood-nest, I would give them some help from other hives in the way of frames of hatching brood.

I do not mean that the disease is catching at all, or that the germs will spread to other hives, but look at the common-sense point, and clean up the sick-room, and the bees will do better. I have tried salt, and all the remedies that I have seen in print, all to no purpose with me. The bees usually get all right when settled warm weather comes, and they get new honey, but I find it helps wonderfully to stimulate them to perfect activity as soon as possible.

Good Prospects—House Apiaries, Etc.

Never having seen anything from this part of the world in "Sunny Southland," I will venture a few notes.

Two years of "blasted hopes" are gone by, and now everything looks like a splendid year—plenty of rain all the month, bees robbing pollen and honey from willow, early peach and almond blossoms. The sages are budding finely, and now we see the "silver lining of the cloud" appearing that Dr. Miller told us of in his June "straw-patch" of 1892, and which we failed to see, although we searched diligently for it. That puts me in mind that I want to thank Dr. Miller for his article on page 114 of the BEE JOURNAL for this year. When I read it, I said: "He shall stand before kings; he shall not stand knee-deep in sugar-honey." We of this Southern country have had very little to say on the subject of honey adulteration, but I think we are all of one mind in regard to the matter, and all wish to stand up and be counted with the true men who are fighting against the debasing of our chosen pursuit.

Mr. B. Taylor, of Minnesota, in the December *Review*, struck the key-note of my hobby—the house apiary. Most authorities claim that bees will not do well with the hives close together, but my bees do, and have done well for years with only one inch between the hives, in a house apiary. Away back in Illinois, on the old homestead, one of my earliest recollections are of bees kept in a house apiary, and no matter how hard the winter, we always had honey.

In this climate it is not the winter, but the summer that troubles us, and after losing a good many colonies by combs melting down, and seeing a good deal of honey run down the hills, as an experiment in the spring of 1891 I placed 12 colonies in a house apiary; in the fall they had increased to 68 good, strong colonies, and I sold from the same a little over a ton of nice comb honey, and wintered the 68 colonies in the house apiary without the loss of a

colony; and in 1891 honey was reported in California as only one-third of a crop; in 1892 the honey crop was a complete failure, but the bees in the house apiary gave me some surplus, and went into winter strong, with plenty of stores, while the colonies outside did not do anything on account of the difference in temperature between the day and night.

The bees that were kept warm in the house apiary could, and did, work wax in the sections all night, while those outside could only keep the brood warm, and in the middle of the day the outside bees were working to keep the brood cool, and their combs from melting down. Those protected from the heat were carrying in honey all day. These are a few of the reasons why the house apiary is my hobby.

There are a number of beginners in this neighborhood, and we are all much pleased with "Our School in Bee-Keeping," and all ready, waiting and willing for the next lesson.

Please tell the editor of the BEE JOURNAL that we are much interested in the temperature reports, and would vote to have them continued, as in this part of the country we measure heat by the foot, and rain by the wheelbarrowful, because long before the summer is over we run out of degrees, and the way we measure rain by the wheelbarrow is thus: We place a large iron barrow in a secluded, convenient place, and measure the amount of water it holds after a rain. We have had another splendid rain for the last four days—it has poured down nearly all the time. The bees have done well so far.

JOHN COLLINS.

Elsinore, Calif., March 10, 1893.

Reads this Department First.

As soon as I get my copy of the BEE JOURNAL, I look for and read this department the first thing. I hope to see our friends in the South "spread themselves," and make the "Sunny Southland" department useful and instructive. R. W. THOMPSON.

Estabutchie, Miss.

The Bee-Meeting at Greenville, Tex., on April 5th and 6th—are you going to be there? It will be an enjoyable time, and you ought to come if you possibly can do so.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Sowing Alsike Clover Seed.

1. Will you please tell me through the BEE JOURNAL what time Alsike clover should be sown? 2. Would it do to sow with wheat or rye, in the spring?

THOMAS FOREACRE.

Marshallton, Del.

ANSWER.—1. The sowing should be done as early as possible, so that the seed may catch some of the spring rains.

2. Yes; or it may be sown with oats, provided the ground can be gotten into the proper condition early enough.

California Bee-Keeping, Etc.

1. Have there ever been bees shipped by the pound (in bulk) across the continent, say from California to New York, or *vice versâ*?

2. By doing so, what would be the possible cost per pound?

3. Is there any honey gathered in the the sugar-pine belt?

4. How would a location be above the pine timber, where brush is abundant, up on high mountains? Could bees be expected to do well in such a latitude?

Millville, Calif. JOHN C. KROPP.

Mr. W. A. Pryal, of North Temescal, Calif., to whom we referred the above questions, kindly replies as follows:

1. I have never heard of bees being shipped to or from this State in pound packages; yet I should think they can be. It is not advisable to do so, for many reasons. In the first place, there are sufficient bees either in this State, and in the States beyond the Rockies, to supply the demands of bee-keepers in either division. Should Eastern apiarists want a lot of extra bees early in the season, it would be wise for them to send to some of the Southern States for them; if an apiarist in the northern part of this State desires a quantity of bees early in the season to build up a nucleus, then he had better send to

some bee-keeper in Southern California. When properly packed, they will travel with safety either way. I would not advise any one to get bees by the pound from the East. The same advice holds as to shipping in the opposite direction.

2. The cost of the bees would be the same as Eastern prices; the expressage would necessarily be high—too high, in fact, to warrant any one in getting them in that way. I don't think they could be brought in pound lots safely from the East through the mails.

3. It depends just where in the sugar-pine belt the bees are located, whether they will find sufficient honey to make it profitable to keep them as a business. Mr. John Muir, the celebrated scientist, is authority for the statement that all the region around Mt. Shasta is a grand bee-garden. There are places below the snow-line where flowers that are rich in honey, bloom without fail every year; these spots deserve to be tried as locations for apiaries. I have never heard of any one starting an apiary in this region. Any of the wild and grand gorges through the mountains in the Shasta country, where there is a plentiful growth of honey-secreting plants, will be found to be a bee paradise. In fact, it is my firm belief that inside of ten years the major portion of our honey will come from the great mountain ranges of the State, instead of from the lower portion of the State, as at present.

The mountain honey of this State as far as I can learn, is denser than that obtained elsewhere in California. In nearly all cases it is not as clear as the beautiful sage honey of the lower counties; yet the difference is not so great as to make one much cheaper than the other.

4. The altitude will not make any great difference to the bees. They cannot be kept in just the same manner as they would be in the warm valleys. If near the snow-line, the apiarist would be obliged to practice those methods in vogue in cold climates, to-wit: wintering, etc. There is such a thing, even in the glorious climate of California, of chasing the snow up the mountain side with one's bees, as is done in some of the mountainous countries of Europe. This may be yet done in many of the mountain districts of this State; and when it is so practiced, such a thing as a dry year among California bee-keepers will be a thing of the past.

W. A. PRYAL.

Read our great offer on page 389.

Separators and the Number of Unfinished Combs.

Query 864.—A writer in the BEE JOURNAL has made the statement that the use of separators in a super lessens the number of unfinished combs. I would like the opinions of different bee-keepers on this subject, and would ask all that say that separators do cause the bees to finish what they commence, rather than commence more than they finish, to tell WHY it is true, according to their views. What is your opinion?—Ind.

I don't produce comb honey, so I have no experience.—A. B. MASON.

I see no reason why it should be true. I have not noticed it in my work.—A. J. COOK.

I produce very little comb honey, but I always use separators to keep each comb true.—E. FRANCE.

I prefer separators, but I don't know that the statement in the above query is correct.—H. D. CUTTING.

I have always produced nice, straight section honey without separators, so my views would not be worth anything.—MRS. JENNIE ATCHLEY.

I don't know. If there is any such difference, it might be because bees are more averse to commence in a place if it is partitioned off.—C. C. MILLER.

My opinion is, bees are a little slower about starting, where there are separators; and, this being the case, they are more apt to finish what they do start.—JAS. A. STONE.

Separators, with me, are a necessity. Neat, finished combs are impossible, practically, without their use. The bees will build straight across the super without them.—WILL M. BARNUM.

I have had but one season's experience without separators, and do not want another, either. Some combs are made too thick, and of course such are not finished as quickly.—P. H. ELWOOD.

With the open-side sections it is true that not so many unfinished combs result. It is because the bees follow the separators and complete only one or two rows of sections at a time, except when the flow of nectar is extra good. when

all the sections are worked at once. I long ago decided that I would use sections without separators rather than use straight-sided sections with separators, which diminish the surplus fully one-third.—G. L. TINKER.

In my experience separators have no such influence. In fact, close observation has led me to believe that the very opposite is true. Bees finish sections better without separators for me, and therefore I never use them.—EMERSON T. ABBOTT.

You are sure to have a great many unfinished sections, any way, but the separator has a tendency to shorten the depth of the cells—that is, prevent bulging—and of course the honey is more quickly ripened and ready to cap.—MRS. J. N. HEATER.

I have not observed that the above is true. If more supers are put on before the first is finished, and nectar is not abundant long enough to fill them all, I think any one will find unfinished sections, whether he uses separators or not. —EUGENE SECOR.

My experience in this matter has not been large, but I have not found that the use of separators makes any particular difference. I do find that handsomer combs are produced by using separators, than are found where they are not used.—J. E. POND.

It is bee-nature to deposit their surplus as near as possible to the brood. Now, the more obstructions you place in the way, the more reluctant they are to go into the supers. Hence, I don't use separators, but foundation *well* fastened to the sections.—J. P. H. BROWN.

I think that separators tend to make the bees build their combs closer to the center of the super, for the reason that the outer divisions are somewhat cut off from the others. A few poor seasons, such as we have had, are excellent for observing this.—J. H. LARRABEE.

If separators are used as wide as the sections, and especially if of wood, they greatly lessen the number of unfinished sections. If ⅛ inch narrower at the top and bottom, they do not do so well. In the first case, each section forms a little separate box, and the bees usually finish all that they start, or nearly so — C. H. DIBBERN.

Writers some times give their own experience and conclusions based on very narrow premises. The only way for "Ind." to settle these matters is to try the experiment for himself. In my own experience separators do not lessen the number of unfinished combs. I have always been able to find the cause when I have been caught with an excess of unfinished sections. The most fruitful source of an extravagant number of unfinished sections is a rapid flow of nectar, with a premature "shut down." A hot wave or excessive rain may bring on the relapse.—G. W. DEMAREE.

We have never noticed this, but the cause of it is probably in the fact that the combs are thus more remote from the brood than without separators, and for this reason they probably hesitate in building additional combs. We believe, for the same reason that less honey is produced with separators than without them.—DADANT & SON.

I can't see why separators should cause less unfinished sections than where none are used, unless they are a hindrance to the bees making an early start in the super. If such is the fact, they probably prefer to store all the honey they have room for in sections already started, than pass the barriers of separators to get more room.—S. I. FREEBORN.

With wide frames and tin separators, with me, there are perhaps not more than half as many unfinished sections as without separators. The reason is, the separators act as a sort of fence so the bees do not spread out sidewise before they actually need room for their honey —without separators they move with equal facility in all directions.—R. L. TAYLOR.

Bees seal their combs as soon as the ends of the cells come within ¼ to 3/16 of an inch of any surface, be that surface another comb, the side of the hive, or a separator; hence sections are often filled, sealed and finished between separators before the bees commence work on other combs, while were it not for the separators not a cell would be sealed in the whole surplus arrangement. All who have used "bait sections" in a poor season know this to be a fact.—G. M. DOOLITTLE.

This is often true. To explain when and why this is the case, would require more space than this Department can allow. As a rule, we may say that when for any reason the bees are a little shy about working in the supers, they are a little more inclined to finish the combs they are working on, instead of starting new ones, if separators are used. This result would be greatly varied by a variety of circumstances, such as season, temperature, kind of bees, style of super, character of honey-flow, etc.—JAMES A. GREEN.

Report of the Wisconsin State Bee-Convention.

Written for the American Bee Journal
BY H. LATHROP.

The ninth annual meeting of the Wisconsin State Bee-Keepers' Association was opened at 7 p.m. on Feb. 8, 1893, at Madison. President C. A. Hatch being absent on farm institute work, the chair was occupied by Vice-President J. J. Ochsner.

ADULTERATION OF HONEY, ETC.

The minutes of the previous meeting having been read and approved, Frank Wilcox, of Mauston, read an essay on "Adulteration." He gave it as his opinion that it would be impossible to entirely prevent it; he did not think bee-keepers as a class practiced it, but that at least 95 per cent. of honey adulteration was done by dealers in the large cities.

The convention condemned in very positive terms the theory that honey could be produced by feeding sugar to bees. The opinion was very unanimous that any such teaching was very detrimental to the interests of bee-keepers.

WORLD'S FAIR APIARIAN EXHIBIT.

The question of the Columbian exhibition was taken up, and a committee appointed to make such arrangement as should be thought best.

As a result of the work of this committee, Mr. Frank Wilcox, of Mauston, Wis., was appointed by the Association to have charge of collecting and placing the honey exhibit of this State. All bee-keepers in this State having comb or extracted honey that could be used for exhibition purposes, will please write to him at once. He has authority to purchase the honey, and we hope by this means to make a fair exhibit, notwithstanding the fact that the past season was a very poor one for honey-production in this State.

Jacob Hoffman, of Monroe, then read an essay on "Bee-Keeping for Profit."

FOUL BROOD.

Mr. Danniher, of Madison, spoke on the subject of "Foul Brood." His method of treatment is as follows:

Shake the bees out of the affected hive into a clean box, and confine them in a cellar for 24 hours; at the end of which time burn up what comb they have made, put them into another clean box, and feed for 24 hours on sugar syrup; then hive them in a clean hive on clean combs or foundation. Destroy all old combs, brood, etc., and destroy the old hive, or renovate by boiling before using it again for bees. The honey may be boiled and skimmed, and used in making vinegar. The greatest danger in the spread of foul brood was said to be through the honey.

Mr. Winter, of Madison, spoke on the subject of legislation against foul brood, and read a copy of a law that had been passed in Ontario, Canada. Mr. Wilcox stated that we had tried and failed to get legislation, and it was a question whether it would be advisable at present. There seems to be but little of the disease in this State.

BEE-PARALYSIS—FOOD FOR BEES.

Dr. J. W. Vance, of Madison, spoke on "Bee-Paralysis." It seemed to be a disease as yet little understood. Salt water sprinkled on the combs was said to be a cure.

Mr. Frank Minnich presented an essay on "Food for Bees." The best known food was full combs of honey saved out, which could be hung next to the cluster in the spring, or when feeding is necessary.

BEE-FEEDERS—QUESTION-BOX.

The question of "Feeders" was taken up. A good feeder was said to be one that would not waste the food, kill bees, or induce robbing; would not require to remove the quilt or honey-board in order to place on the hive; must be cheap and durable, and easy of manipulation. Several kinds were spoken of which meet the above requirements, some of which have been described in the BEE JOURNAL.

The following were elected as officers for the ensuing year:

President—C. A. Hatch, of Ithaca.

1st Vice-President—Frank Wilcox, of Mauston.

2nd Vice-President—Jacob Hoffman, of Monroe.

Recording Secretary—H. Lathrop, Browntown.

Corresponding Secretary and Treasurer—Dr. J. W. Vance, of Madison.

The question of prevention of increase was discussed, followed by the Question-Box, which was a very profitable feature. The attendance was small, but the interest good, and the discussions much enjoyed by all. H. LATHROP, *Sec.*

Report of the Southwestern Wisconsin Convention.

Written for the American Bee Journal

BY A. A. ARMS.

The seventh convention of the Southwestern Wisconsin Bee-Keepers' Association was held at Boscobel, Wis., on Jan. 11 and 12, 1893. The convention was called to order by President Edwin Pike. The Secretary being absent, Mr. M. M. Rice was chosen Secretary *pro tem.* Owing to the bad weather, the attendance was not large, but was very enthusiastic, and very many important questions in apiculture were asked, and intelligently debated.

The convention then adjourned until 9 a.m., Jan. 12th.

SECOND DAY—MORNING SESSION.

The convention was called to order at 9 a.m., by the President.

The first question asked was, "Have the last few years of poor seasons been a detriment to bee-culture?" It was discussed, and decided that they had not.

An appropriate resolution referring to the death of the late Secretary of the association, Benjamin E. Rice, who died Aug. 8, 1892, was passed, and ordered to be recorded in the minutes of the meeting.

A resolution on honey adulteration was laid on the table.

The place of the next meeting was decided in favor of Wauzeka; and the time selected for holding the next semi-annual meeting was April 20, 1893. The convention then adjourned until 1 p.m., when it was again called to order by the President.

The election of officers for the ensuing year was held, and resulted as follows:

President, N. E. France, of Platteville; Vice-President, J. W. Van Allen; Secretary, A. A. Arms; Assistant Secretary, M. M. Rice; and Treasurer, H. Evans.

The Secretary and Treasurer read their reports, which were approved.

The question, "What is the proper management in such seasons as 1892?" was discussed, and also various other topics.

A resolution was passed, tendering the thanks of the convention to Messrs. M. A. Gill and E. Pike for the interest they had taken in the convention.

The membership of the Association numbers 66, and bids fair to be considerably increased in the near future.

The convention then adjourned.

A. A. ARMS, *Sec.*

Convention Notices.

UTAH.—The semi-annual meeting of the Utah Bee-Keepers' Association will be held in Salt Lake City, Utah, on April 10, 11, 1893. All interested are cordially invited,

View, Utah. R. T. Rhees, Sec.

PENNSYLVANIA.—The Susquehanna Co. Bee-Keepers' Association will hold their 12th semi-annual meeting at the Tarbell House in Montrose, Pa., on Thursday, May 4, 1893. All are invited. H. M. Seeley, Sec.

Harford, Pa.

NEW YORK.—The next meeting of the Allegany County Bee-Keepers' Association will be held at Belmont, N. Y., on May 4th, 1893, in the Hotel Belmont. All bee-keepers are invited to attend and make it what it should be—an interesting meeting.

H. C. FARNUM, Pres., Transit Bridge, N. Y.

COLORADO.—The adjourned meeting of the Colorado State Bee-Keepers' Association will be held in the Charles Block, corner 15th and Curtis Streets, Denver, Colo., on April 18, 1893. Business important to all honey-producers will come before the meeting.

Littleton, Colo. H. KNIGHT, Sec.

KANSAS.—The Kansas State Bee-Keepers' Association will hold their annual convention at Ottawa, Kansas, on April 6 and 7, 1893. All bee-keepers are cordially invited to attend this convention, and make it one of the most interesting ever known. There will be a good programme. Bring something to exhibit. L. WAYMAN, Sec.

Chanute, Kans.

TEXAS.—The Texas State Bee-Keepers' Association will hold its 15th annual convention in Greenville, one mile north of the Court House, at the apiary of Mrs. Jennie Atchley, on Wednesday and Thursday, April the 5th and 6th, 1893. One of the biggest bee-meetings ever held in the South is anticipated. Everybody is invited. No hotel bills to pay. Come one, come all, and let us have a lovely meeting, and an enjoyable time. All bee-keepers invited to bring along something to exhibit. A. H. JONES, Sec.

Golden, Texas.

The Washington Convention Report is now in pamphlet form, and we shall be pleased to mail a copy to any one desiring it, for 25 cents. It contains 32 pages. As only a very limited number were printed, you should order promptly if you want a copy.

Self-Hivers and the Queen-and-Drone Trap.

Written for the American Bee Journal
BY HENRY ALLEY.

Self-hivers seem to be receiving a share of notice by the various bee-papers. This, of course, is all right, though there are claims made for some of the hivers that the queen-trap has always possessed. We are told that some of the hivers now used under the colony that casts the swarm, are so used merely to detain a part of the swarm, while the larger part of the bees ascend to the brood above, and continue work in the supers they deserted when they swarmed. This seems to be a new use for an automatic hiver. Well, now, if this is the design of a self-hiving arrangement, I think bee-keepers will go to considerable trouble and expense to accomplish a thing that can be done equally as well by using a plain, simple drone-trap!

I venture to say that it is not half as much work (and no bother at all), to place a queen-trap on a hive, as it is to adjust some of the hivers. When once there, the trap is in plain sight, and one can see at a glance whether a swarm of bees has issued in the absence of the bee-keeper. Now this cannot be done where a self-hiving arrangement is used in a brood-chamber, and placed under the hive the colony is in that a swarm issues from.

I will explain briefly how the trap works: When a swarm issues, the queen will surely be found in the trap. That she is there may be known by the presence of a considerable number of the worker-bees. If there is no queen in the trap, there will be no cluster of bees. When a queen is in the trap, there will be towards night, at least, about half a pint of bees in one corner of the trap. During the day the trap will be pretty well filled with bees if there is a queen in it.

The bees, as is well understood, when they swarm and miss their queen, return to the hive they issued from, and return to work the same as though nothing unusual had happened. Now if not desirable to increase the number of colonies in the apiary, this operation is all right. But to hive the swarm at the time it issues, of course it is necessary that some one should be in the apiary to change the hives. That is, the hive the bees came from should be removed to one side, a new one put in its place, the trap taken from the home hive and placed at the entrance of the new hive, when the swarm will quickly hive itself.

Now if comb honey and not increase is the object, the hives should not be changed, nor the trap meddled with until the third day after the swarm issued. At that time the queen that accompanied the swarm (or any other queen will do) should be introduced to the home colony. If done as here stated, there will be no need of opening the hive to destroy the queen-cells, as the queen will attend to that in the course of a few hours after she is introduced. There will be no more swarms from that hive during the season.

Well, now suppose it is not desirable to give the queen back to the old colony, and it is not convenient to procure another for two or three weeks; the proper thing to do under the circumstances, is to let the trap remain with the queen in it until it is known that a second swarm will not issue. In the mean time, the young queens will hatch, and several will be found dead in the trap. That is a sure indication that no more swarms will issue, and the trap can be removed for the season.

If the old queen is a valuable one, and the apiarist disires to preserve the cells that were built by the bees before the swarm issued, let the trap remain with the queen in it until the seventh day, and then cut out all the cells but one, and let the remaining one be the largest and finest of the lot.

Some time last summer I read an article in the BEE JOURNAL by a writer who was describing some sort of a swarm-catcher. He said among other things, that he did not like the queen-trap, as several swarms would issue at one time, and all alight in the same place, and that made a bad mess of it. Well, what has the trap to do with preventing several swarms issuing at the same time? Now suppose there are four or more swarms in the air at one time where there are no traps in the apiary—the swarms surely will all settle in the

same place, bees, queens and all. Now, isn't that a pretty mess? What can be done about it? Why, soak the bees with water, shake them into a hive-cap, or upon a blanket, and poke them over to find the queens. How does that sort of a job strike the beginner?

Well, now suppose there are traps on all the hives that the swarms issued from? The queens will be found in the traps, and ninety times out of a hundred, the bees, as soon as they miss their queens, will return to their respective hives. If they do not, it is an easy matter to divide them up, and as the queens are safe, the worst part of the job was already done in the beginning.

The trap was designed to save the apiarist the trouble of going into trees for his bees when a swarm issues. It also prevents any swarms absconding in the absence of the bee-keeper, or at any other time. It also catches and destroys all useless drones.

Wenham, Mass.

The Season of 1892—Wintering—Absorbents, Etc.

Written for the American Bee Journal

BY J. P. SMITH.

The season of 1892 was a poor one for bees in this vicinity. My bees came out well in the spring, having wintered without loss. They built up well in early spring, but the summer was such as to give me only about one-third of a crop of honey. The fall was better; golden-rod yielded fairly, so that bees generally collected a supply for winter.

WINTERING BEES.

As usual, I reduced the number of my colonies, by uniting, from 42 to 25. The advantage of this method is two-fold—it enables me to save my best queens, and also gives me good, full hives of bees for winter, which I believe is a great advantage in this latitude. They may consume a little more honey, but with me they generally come out strong in bees, the warmth of which enables them to breed early, and hence build up early in the spring. I winter them on the summer stands, with an outer case over the hive, packed with some dry material, such as planer shavings or chaff.

ABSORBENTS—SEALED COVERS.

On part of my colonies I put "Hill's device," covered with a cushion of some dry, porous substance from 7 to 10 inches in thickness. On the others I put a pine board ⅞ of an inch thick, fitted closely, leaving a bee-space between it and the frames, and covering the board with dry material 4 to 5 inches thick.

I have tried these two methods several seasons, have observed closely, and have discovered no difference in their wintering. In fact, I conceive there is but little difference, philosophically, between the two methods. I deem one covering about as porous as the other, for science tells us the pine is porous. I would not believe in having the sealed covers made of a compact metallic substance, thus preventing the escape of the moisture. The only mistake I found in opening my hives last spring, was in the upper part of the cushion. All the rest was dry and warm, and the combs were as nice and dry as they were last fall. By removing the covers one fair day, all this moisture disappears.

ADULTERATION OF HONEY.

Yes, push the opposition to it. Get the law against it, and have it so framed as to include the new-fangled, unauthorized name of "sugar-honey."

Get the law, and then enforce it. Let the same push be made that has been made against oleomargarine, and all adulterated honey will "down." Oblige every person that offers it for sale, to label it, setting forth just what it is. Have this done, then I predict it will have to beg for customers, and beg in vain, and *honest* bee-keepers will have no harm from it. When Rambler's whirlwind strikes them, they may realize that the Prophet Hosea had them in mind when he prophesied as in Chapter VIII, verse 7.

I want to commend the AMERICAN BEE JOURNAL for the straight-forward, high-minded course it has always taken in regard to adulteration.

Sunapee, N. H.

The Will of the Queen and the Sex of the Egg.

Written for the American Bee Journal

BY DR. C. C. MILLER.

That proof of which I spoke, as to queens laying drone-eggs at will, is promptly forthcoming. Here it is from D. Lindbeck, of Bishop Hill, Ills., whose letter is so interesting that I give it entire:

FRIEND MILLER:—I read your article on page 244, where you say: "I can think of one argument that would be more convincing than any yet brought forth in favor of the 'Will' theory. It would be to find the queen laying in drone-cells that were merely begun." etc. One such case came under my observation last season. The bees were just in the act of building drone-comb, and the queen laid eggs just as fast as they had cells fairly started (about ⅛ inch deep, and I think some less). You can put this down as being a *fact*. Will or no will, I had that comb full of drones, and they hatched out drones, too. I saw it all. I did not have many colonies, and you may know I peeped in quite often and saw what they were doing.

But there is one thing that beats me, and I cannot make out how it came about. I got two queens from Mr. Alley, introduced them safely, and in about eight or ten days both colonies swarmed. I was near at hand, and I had a strip of queen-excluding zinc in front of both. I saw the queens trying hard to get out. I watched quite awhile until nearly or quite all the bees were out and in the air. I took the zinc strip off, and the queens were fast in the zinc. I caught and caged them, and hung the cage outside of a new hive with full sheets of foundation; the bees came back in about half an hour, and I let the queens go in. I saw them go in. I put the zinc strips back (Tinker zinc, 17/100 perforations), put on the supers, and thought all was O. K.

I did not examine those colonies for 3 or 4 weeks, and when I did, I found in one a very dark queen (Alley's were both very yellow) and brood, all in working order. In the other I found no brood, and very few bees. I looked long and well, and finally found a small queen not much, if any, larger than a worker-bee, and *black*.

Now the questions are, where did Alley's queens go? and where did the bees get their black queens, especially the last named? They never had any brood, I am sure—only a little honey.

If I follow directions for introducing sent with queens by mail, and lose the queen worth $2.00, who is to blame, I being a novice? D. LINDBECK.

The case of those two queens is certainly an unusual one. To answer your last question first, queen dealers sometimes guarantee safe introduction if directions are followed, but you hardly refer to the present case, for you say they were "introduced safely," and they certainly must have been, as they issued with the swarms 8 or 10 days later.

It is not the safest thing to venture a guess as to the case without knowing more about it, but one way which might possibly happen, was that a young queen had hatched out and the old queen had been held in up to the time the young queen was ready to leave. Again, a small swarm with a black queen may have united with the swarm while it was out, or entered the hive shortly afterward.

If I were sure you were not bigger than I, I would hint that you *might* be mistaken as to that small black queen being a queen at all; for if she had been there three or four weeks, it seems she ought to have had some brood. Perhaps some one else will give a better guess.

Marengo, Ills.

A Plan for Cellar Spring Feeding of Bees.

Written for the American Bee Journal

BY F. H. WALKER.

It is evident that some of the most valuable information in the BEE JOURNAL is a repetition of methods of some simple device used by some of our less prominent bee-keepers, and I have been greatly helped by some of the suggestions and ways of contributors to the BEE JOURNAL. So I hope to give a little "boost" to some of them in my way of spring cellar feeding of bees, which seems to do away with spring robbing after putting them out for the summer, and also saves some of those that are likely to breed too much and become short of honey during the winter.

This should be done just before the warm weather that comes in the spring before we wish to put the bees out, because in feeding many colonies it is apt to raise the temperature too high, unless they are aired out at night. I usually look, or lift them all over, beginning at one side, and pack them up, and when I find a light one, I put it on top, ready for their food, as I do not like to disturb the combs while in the cellar. So when I have looked them all over, I have the light ones all on top, or by themselves, ready to nurse.

I use the Mason glass fruit jars (2 quart), and after filling them with a

sugar syrup thin enough to prevent granulating, I cut up pieces of cheese-cloth about five inches square, and tie a piece over the top of the jar, or hold it in place, and screw the zinc rim about one-half on. This makes a little space between the cheese-cloth and the blanket over the bees. Then cut a hole through the blanket just over the cluster, about an inch square, and set the glass jar over the hole, bottom side up, and they will cluster up in the little space, and nurse the syrup through the cheese-cloth as quiet and undisturbed as though nothing had happened, after they have first found their new lunch, and become used to it.

The rubber and glass top can be laid aside, and later wash up the cans and use them for putting up extracted honey. The smallest colonies can feed in this way, when the other feeders work only on large colonies, unless they are very warm (too warm for the rest). I also use this way of feeding in the yard, both spring and late fall, too, sometimes. It brings the honey nearer to the bees than any other way directly over the cluster.

Manchester, Vt.

How Far Do Bees Go for Honey and Do Well?

Written for the American Bee Journal

BY F. X. ARNOLD.

How far do bees go in search of honey and still do good work? is a question that seems to have received some attention of late, and bee-keepers differ widely in their opinions, some limiting the distance to 1½ or 2 miles, while others go to the opposite extreme, and say they will go as far as 12 miles. However, when honey is plentiful, the former figures may be nearly right, and but very few bees work outside of that distance; while, if honey was scarce in their immediate vicinity, they would probably go a far greater distance than that, although I never saw bees over 3½ or 4 miles from their homes.

Well, last summer was the first time I had a chance to test the matter a little, as last year was the poorest of the several poor seasons we have had in succession, and the bees were in a starving condition all summer, until the fall blossoms yielded their precious sweets, which gave the bees more than they could do for about five weeks.

The main part of our fall crop of honey is from smart-weed; now this smart-weed, or whatever they call it, has its peculiar ways of blooming, and also a decided difference in the amount of honey it produces; that which grows on hilly regions has usually small bloom, and sometimes yields sparingly, while that in the bottoms blooms from one to two weeks earlier, and has larger and more perfect blossoms, and gives a good supply of nectar before a bee is seen working on the same plant on the hills.

As my apiary is located about two miles from the bottoms, the bees began working very briskly for several days, and I noticed not a single bee working on the smart-weed near the apiary; so I immediately went to the bottoms, and found the smart-weed in full bloom, and just literally alive with bees. This satisfied me that my bees were working at least from 2 to 2½ miles from home, and doing good work at that.

The next thing I wanted to know was, how long it would take a bee to get a load of honey at that distance, as no other honey was being gathered at that time, and the working bees could be seen in the morning going in a steady stream towards the bottoms—like a swarm that is hurrying off to get to better quarters than they had at home. So I sprinkled flour on a good many of the bees that emerged from a certain colony, and waited for their return.

The first bee returned in 13 minutes, and was well loaded with pollen from corn-tassels, which it evidently gathered in some of the neighboring corn-fields. The second returned in 32 minutes, and had a load of honey, and a little smart-weed pollen. Several entered at 34 minutes, and a few at 37, and all the way up to 40 minutes. All those that returned after 30 minutes were well loaded with honey, and some carried small pellets of smart-weed pollen. The average length of time it took them to go to the bottoms, load themselves and return, was about 36 minutes.

To tell just how much more honey they would have gathered if they had the flora near by, is hard to tell—undoubtedly a good deal more honey; but bees can do good work at the above-named distance.

Deer Plain, Ills.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

A Horse-Blanket that Angered the Bees.

Written for the American Bee Journal

BY CHAUNCEY REYNOLDS.

I wish to relate an incident which happened to me last September.

On returning from a camp-meeting, I drove up near the apiary and took a wet horse-blanket, that had been used to wrap around ice, and hung it on the fence to dry, about 12 feet from a hive of pure Italian bees—not in front, mind you, but off to one side of their line of flight. The bees were working strong on heart's-ease at the time, and, in fact, the only time they did work during the year.

In a couple of minutes I happened to notice that there were a lot of bees around the blanket, but I thought nothing of it, as I thought perhaps there might have been some sugar spilled on it, and they were after it. In a very short time I again noticed the blanket, and then there were a large amount of bees on it, and around it in the air for perhaps 20 feet or more high, and they were pouring out of all the hives and making straight for the blanket. By that time it was a perfect uproar—in fact, I thought for a moment that every colony was swarming.

Still I continued to think there was sugar on the blanket, and started to go and get it for fear it might start robbing. When I got near it, I saw it was covered with bees with their stings fast, and thousands more trying to get a chance to get a sting in, too. In fact, I could hardly see the blanket for the bees that were fast on it. I made three or four grabs for it, but was driven away each time severely stung; and as I am a man who was an involuntary visitor at Andersonville during '64, and am naturally rheumatically inclined as the result of my visit, I do not go far out of my way to avoid stings. I hastened to don the "Globe" veil and buckskin gloves before I could get the blanket. I then ran with it some distance before I threw it down, and I believe there was then a fair-sized swarm of bees sticking to it.

I am confident if I had left the blanket hanging on the fence, it would entirely have ruined my apiary, as I never saw bees so mad in all my life. In fact, I could go nowhere near them the balance of the day, and they hung around and over where the blanket had been, for a long time, and it was lucky for me that my hired man removed the team as soon as I hung the blanket on the fence, or I might have lost a couple of horses. Who can account for it?

Fremont, Ohio.

Something in Favor of the Carniolan Bees.

Written for the American Bee Journal

BY JOHN ANDREWS.

I am inclined to join issue with some of the writers in the BEE JOURNAL on the question of "the best bee" for the masses. My experience has been somewhat different from the most of them. It may be locality, or it may be in the management.

I kept the native or black bees 15 years, after which I bought over 30 Italian queens (some at a big price) to change my blacks so that I might get rich in a short time (by honey alone), but I never saw my "pile," but the first winter's loss was 65 per cent., going into the cellar with a fair amount of bees, and a good supply of honey the fall before.

I kept the Italians 12 years, but could never succeed in wintering them as well as I used to winter the blacks by (at least) 50 per cent., and they never gave me any more honey to the colony than did the blacks; but were much more gentle (when pure) and easily manipulated, but as they became somewhat mixed with the black bee, I often was stung 50 times a day when I was crowding my work, and honey a little scarce, I concluded to change again. So eight years ago I bought imported Carniolan queens, and have made them since that time (as far as I am concerned) "the coming bee." For extracted honey, they will out-do any Italians I had during those 12 years; and neither are the Carniolans behind any other bees for comb honey, but, I confess, it took me 4 or 5 years' study to know just how to work them.

On page 567 of the BEE JOURNAL for 1892, we find Mr. Wm. S. Barclay wants a "rest from the black bee agitation," and wants to know how to winter bees successfully. With his Italians I cannot tell him, but with the Carniolans I winter, commonly, without the loss of a colony; but I cannot say that in the springing I do not lose some; though I have about come to the conclusion to set them with their hive entrance north, and then as the season advances I will

change them gradually, as I can on my bee-yard. Of course, it will take some work, but I think it will pay me. It is the sun coming into the entrance that often starts the bees out, when outside it is too cold for them. This is what I think to be one of the greatest causes of spring dwindling, as colonies facing south I have thought dwindled most of any.

Patten's Mills, N. Y.

Best Paint for Hives—Does it Pay to Paint Them?

Written for the American Bee Journal

BY C. J. ROBINSON.

I wish to add an answer to Query 847—"Is it economy to keep hives painted? If so, what kind of paint is most desirable?"

Generally, it is supposed that "white lead" (so-called) and linseed oil is most durable. So-called white lead is carbonate of lead, the lead, in thin sheets, having been reduced to that state by coming in contact with steam charged with carbon. Formerly sheets of lead were coiled and placed in earthen pots that were filled with vinegar and kept warm. Hence, white lead is of a corrosive nature, has no chemical affinity for linseed oil (poppy oil is best), but slowly decomposes the oil, and at length the paint, being exposed to the atmosphere, rubs off chalky.

The oil should be rendered drying by being boiled with litherage or other "dryers," so as to neutralize the fat contained in raw oil. Two who gave answers mentioned that "white lead and oil (raw linseed oil) is good enough." White lead mixed or ground with *raw* oil does not, by reason of the fatty element present, cohere with a pigment to form an enamel or body, but the fatty oil penetrates the wood on which it is spread, leaving the lead like chalk.

White zinc for painting is an oxide, not so corrosive as white lead, does not decompose oil, but does not form so much of a body as lead does. A mixture of lead and zinc makes a better paint than lead alone; but better still is painting with lead, and then cover it with a coat of zinc, by which means the lead is kept from the destructive action of the atmosphere, which is far more injurious to lead than zinc.

Concerning whether it pays to paint hives, it depends upon circumstances. A hive made of cedar, or such durable material, may be kept in use many years. If made of linden (basswood) or maple (rock) they soon begin to decay when exposed to rain, unless painted. The mineral pigments—yellow ochre, venetian red, umber, and some of the iron ores—are superior in point of durability compared with the metallic paints.

Richford, N. Y.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Nothing Wrong with the Bees.

In the comments on M. D. Andes' bees dying at the rate of 25 to 100 per day for a considerable length of time, it is said that it would indicate something is astray. Suppose they were put into the cellar Dec. 1st, from that time until now would be 110 days—and 100 per day would be 11,000 bees. Now suppose there were 30,000 bees in the hive Dec. 1st, there would still be 19,000 bees left, which I think would be a good, fair colony for spring. I finished putting 82 colonies into the cellar on Dec. 1st, and have carried out an ordinary wooden bucket five times, heaping full, of dead bees, and do not think there is anything wrong with mine. O. B. BARROWS.

Marshalltown, Iowa, March 10, 1883.

Winter and Bees in Minnesota.

For the past week the country here has been entirely snowbound. We have had no mail for six days. The neighbors travel on snow-shoes to see each other. A week ago to-day 20 inches of snow fell in just 24 hours, in addition to the 20 inches we already had before, and is now the deepest snow since the winter of 1856-57; since then we have not had such a heavy snowfall in 24 hours as the one a week ago, which followed a heavy wind storm, and made drifts from 5 to 15 feet high. Trains, to-day, are running again, but the country road

are not opened as yet. We have had hard freezing nights, 24° yesterday, and 14° below zero this a.m., with nice, sunny days.

My bees, in all three bee-cellars, 12 miles apart, seem to be contented so far. I am sure that they feel better than if they were left on the summer stands, packed ever so good. I found out long before this that a good cellar is the best place to winter bees, in this northern country. Those who winter bees on the summer stands will have lots of trouble in winters like this, to keep their bees from smothering in the snow and ice, with heavy losses besides. The snow in my bee-yards is from 4 to 5 feet deep, and it looks now as if it will be a long time before it all will be melted away. If big snow means a big honey crop, then we should get our dishes ready now to hold it all, and not let any go to waste when it does come. I hope we all may enjoy a big harvest the coming season.

C. THEILMANN.

Theilmanton, Minn., March 6, 1893.

Holder for Sections.

On page 148 Mr. Doolittle presents a good way of holding sections tight. My way is similar, only a "shorter cut," namely: I make a key like a tap to a wooden faucet, only smaller, something like a fiddle key; tie to it a cord of binder twine, and the other end to a tack. Have a ⅜-inch hole to put the key in, and a saw-kerf in the corners for the cord to come around. A twist tightens everything snug as a drum. I use the same on the brood-chamber with closed-end frames. M. HAAS.

Mendon, Mich.

Mating of Queen and Drone.

Some twenty years ago I was in the habit of visiting a bee-friend, who was the priest of a Catholic institute on a beautiful hillside near our city. One Sunday afternoon when I drove up, my friend told me that one of the "brothers" (of the order of Franciscans) and himself had seen a queen and drone locked, and fall on the porch, just an hour or two before my arrival. The "brother" had put his foot on the pair before my friend had a chance to prevent him. I had reason to believe that the story was true.

In the *Centralblatt* of Jan. 15, 1893, on page 21, is a picture of a pair—drone and queen—locked in copulation, as they are still kept in alcohol by Mr. H. Reepen, of Jugenheim, Germany. A Mr. I. B. Buchholz found the pair in the grass, near the hive, just after a second swarm had returned to the hive. The queen and drone were locked, and each trying to get away in opposite directions. When Buchholz picked them up, they were alive, but before he put them into alcohol, they had died and turned on top of each other, as shown in the picture, with their abdomens together. The above may be of interest to our friends, and cause the finding of more pairs hereafter. CHAS. F. MUTH.

Cincinnati, Ohio.

Bees Doing Well in the Cellar.

I have 22 colonies in the cellar, and they are doing well so far. They have sealed brood in the combs, and all but two have plenty of stores. This is the second day that I thought fit for them to be out. They did no good last season until harvest, owing to the cold, rainy weather, but the latter part of the season they did fairly well on Spanish-needle and smartweed. I had one swarm issue about the middle of July, and it filled an eight-frame hive, and gave me 30 pounds of surplus in sections. I had 13 colonies, spring count, and got 465 pounds of comb honey, which I sell at 18 cents per pound. I hear of a great many bees dying. They were all left on the summer stands, as far as I can hear, except my own, which are perfectly quiet yet in the cellar, and while they remain so, I shall leave them in there. J. B. DUNLAP.

Rochester, Ind., March 7, 1893.

Bees and Prospects in North Carolina.

We have just passed through one of the most severe winters. Just think for a moment, down here in North Carolina, snow on top of snow, ice and sleet, and the mercury playing close around zero all through January, and our bees out on the summer stands in single-walled hives, without any protection whatever! Well, we wondered and waited to see how our little pets were going to pull through this very cold spell.

At last, about Jan. 25th, there came a nice, warm day. Walking out through the snow to where my bees are located, I at once discovered that they were uneasy, and wanted to get out of the hives. I at once got a hoe, and began scraping the snow away from the entrances of the hives, when out came the bees, and had a nice flight. I found them all O.

K., except two colonies, which were frozen to death, with plenty of honey in their hives.

We had some rough weather in February, and have also had some very fine, sunshiny weather, so much so that the maple blossoms are beginning to open, and yesterday and to-day were very fine days. My bees are carrying in honey and pollen right along. Brother bee-keepers, it would surely have done your heart good to have been with me to-day, out among the maple trees, and heard the sweet and delightful hum of the busy bees among the maple blossoms, and seen them dart from flower to flower. It would certainly have put new life and ambition into your soul.

Let me make this prediction: We are going to have the best honey-flow in some parts of North Carolina this year, that we have had for many years. Get your supplies ready, and manage to have the hives full of bees and brood by April 25th (five or ten days earlier will do no harm); then put on the supers, and if there is not too much rain, you will get a nice lot of honey. Try it, and see if you don't.

JOHN D. A. FISHER.

Woodside, N. C., March 2, 1893.

Compression Theory as to Queens, Etc.

Please score me in the AMERICAN BEE JOURNAL as against the compression theory as to the queen determining the sex of the egg; the fact that a queen will lay both sexes of eggs at will in very shallow drone and queen cells (which are so near the one size)—that with me the theory has exploded.

And here, again, I suppose I am with the minority. I do not believe that the queen carries off the male organs of the drone after mating. My observations do not warrant such a belief.

Manistee, Mich. W. HARMER.

Profitable Reading, Isn't It?

We cannot get along well without the BEE JOURNAL. We are the only ones who take it in this section, and we get more honey than all the others combined. Last year we secured more honey than all our neighbors, and I believe our success was due, to a great extent, to reading the most valuable AMERICAN BEE JOURNAL, as from it we are able to gather the thoughts and the experiences of most of the leading bee-men, not only in this country, but of many of the foreign countries as well, and by so doing we can apply those principles of apiculture which are best suited to our section of the country.

We live in that portion of Pennsylvania known as "Little Greene," in the southwestern corner of the State. We have 35 or 40 colonies of good Italians, and in splendid condition. We are now selling our last year's crop of honey at 20 cents per pound, and trust our many bee-keeping friends are receiving a price equally as good.

JAS. C. POLLOCK & SONS.

Waynesburg, Pa., Feb. 22, 1893.

Nameless Bee-Disease.

I notice in the BEE JOURNAL for March 2, Mr. Chester Belding wishes to know something about the "nameless bee-disease." I have had 2 colonies so affected with it that they were black and shiny, and would come out (and were driven out, also) of the gum until the ground was literally covered around the hive, or in front. They would shake and tremble until they died. I did nothing for them. My case was the first I had heard of. Since then I have noticed in the BEE JOURNAL several such cases. Mine was 10 or 12 years ago. I looked in the hive, but it was all right, with plenty of honey. A. D. BUCKLY.

Weston, Tex., March 5, 1893.

Anti-Adulteration Laws, Etc.

In case the anti-adulteration Bill (page 263) should become a law, how can we prevent our bees from going into the fields and gathering that nasty, filthy stuff called honey-dew, and mixing it with the pure nectar of our white clover and other flowers? It is thousand times worse than pure cane-sugar. The Bill reads, "or cause it to be done by any agency," etc. Now, I claim the bees are our agents, and we are responsible for their actions. I see no other way than to eradicate them from the face of the earth. I am a bee-keeper of 25 years' experience. L. HIGHBARGER.

Leaf River, Ills.

Experience with Bees—Alfalfa.

I bought 2 colonies of bees on Nov. 1, 1891; they had plenty of honey, but were on very crooked combs. I had some wild ideas in regard to bees, and before the spring of 1892 had fairly opened, I had paid out for the bees and other fixtures $43.54.

When spring opened, I found one col-

ony was queenless, and the other reared nothing but drones, and only for some "pointers" I got from a queen-breeder in Texas, I should have lost both colonies. However, I brought both through, and they increased to four fine colonies, and then I got one from the woods. All five have plenty of stores, and are wintering well on the summer stands in winter cases packed with oat-hulls.

There is a great deal of alfalfa raised here, which makes three crops each season; besides an abundance of wild flowers on brush and prairie, and I am looking forward to a good yield of surplus honey the coming season, although I didn't get a bit last summer; yet I have my bees all on nice straight combs of drawn foundation, and in good condition to commence business right, when the flowers bloom. They were gathering pollen from the mills last week, but today we had a little blizzard, though it has cleared off again, and will be warm in a day or two, undoubtedly. I think much of my bees as pets, and find a peculiar excitement in "fussing" with them, which I really enjoy, although I get a black eye occasionally. I take much interest in the BEE JOURNAL, and find it very instructive.

O. K. OLMSTEAD.

Orleans, Nebr., Feb. 27, 1893.

My Experience in Bee-Keeping.

I live on a farm of 93 acres, and commenced to keep bees in the spring of 1889. I traded a violin and some lumber for 5 hybrid colonies in box-hives. I then made some hives of my own that took 9 frames 11x16 inches, inside measure. I let them swarm a couple of times, those that would, and then transferred them all. From some of the first swarms I received 70 pounds of comb honey in two-pound sections, and in the fall I had increased to 14 colonies; besides, I had caught 4 runaway swarms, of which one swarmed, making 5 that I had got by chance; I thus had 19 colonies to start into winter. I wintered them all, and last fall I put 65 colonies into my new bee-house in good condition. They are wintering splendidly so far. I will describe my bee-house later, if it winters bees as well as I think it will.

ANDREW M. THOMPSON.

Whitney's Crossing, N. Y., March 6.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for $1.40.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.

April 5, 6.—Texas State, at Greenville, Tex.
A. H. Jones, Sec., Golden, Tex.

April 6, 7.—Kansas State, at Ottawa, Kans.
L. Wayman, Sec., Chanute, Kans.

Apr. 10, 11.—Utah, at Salt Lake City, Utah.
R. T. Rhees, Sec., View, Utah.

April 18.—Colorado State, at Denver, Colo.
H. Knight Sec., Littleton, Colo.

April 20.—S. W. Wisconsin, at Wauzeka, Wis.
N. E. France, Pres., Platteville, Wis.

May 4.—Susquehanna Co., at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 4.—Allegany Co., at Belmont, N. Y.
H. C. Farnum, Pres., Transit Bridge, N. Y

May 18, 19.—South Texas, at Wharton, Tex.
T. H. Mullin, Sec., Eagle Lake, Tex.

☞ **In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.**

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.....Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

Mrs. J. P. Cookenbach, whose advertisement appears on page 387, will be glad to have you write to her to secure a good place to stay during your visit to the World's Fair the coming summer. The BEE JOURNAL refers its readers and friends, with much pleasure, to Mrs. C., who will do the right thing by all who give her an opportunity to help them.

"The Winter Problem in Bee-Keeping" is the title of a splendid pamphlet by Mr. G. R. Pierce, of Iowa, a bee-keeper of 26 years' experience. It is 6x9 inches in size, has 76 pages, and is a clear exposition of the conditions essential to success in the winter and spring management of the apiary. Price, postpaid, 50 cents; or given as a premium for getting one new subscriber to the BEE JOURNAL for a year. Clubbed with the BEE JOURNAL one year for $1.30. Send to us for a copy.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, March 25th, 1893:

CHICAGO, ILLS.—Honey is about cleaned up so far as fine comb is concerned. Quite a good deal of poor to fair is on sale, prices ranging from 13 to 15c. Fancy would bring 18c. Extracted, 3@8c. Beeswax, 25c.
R. A. B. & Co.

CHICAGO, ILL.—Fancy stock is very scarce, with plenty of inquiry, with good prices offered for same. It sells readily at 18c.; No. 1 comb, 16@17c. Dark sells slow. White extracted, fair supply, with good demand at 8½; dark, 6@7c. Beeswax—23@25c. J. A. L.

CINCINNATI, OHIO.—There is a fair demand for extracted honey at 6@8c. There is no choice comb honey on our market, and prices are nominal at 14@16c. for best white.
Beeswax—Demand good, at 24@27c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—Demand for comb honey is very light, White fancy stock is well cleaned up. The market is well stocked with off grades and buckwheat, and prices are irregular. Extracted is in good demand and stocks are light. We quote: Basswood and white clover, 8@8½c.; buckwheat, 6@6½c.; Southern, 70@75c. per gallon.
Beeswax—25@27c. H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality, 1-lbs. Beeswax is neglected at 22@23c. S., L. & S.

BOSTON, MASS.—Honey is selling slow and prics are lower. Best 1-lb. comb, 16@17c.—Extracted, 8@10c.
Beeswax—None on hand B. & R.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 6@7c. No beeswax on the market. H. & B.

MINNEAPOLIS, MINN.—The market is good. We quote: Fancy white clover 1-lbs. sell fast at 18c.; 2-lbs. 16@17c. Buckwheat, comb, 13@14c. Extracted, in barrels, 7@8c.; in 5 or 10 lb. kegs., 9@10c. J. A. S. & C.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.
Beeswax—20@23c. C-M. C. C.

ALBANY, N. Y.—Our stock of honey is light and also receipts. Demand keeps up better than usual this season. We are selling white comb honey at 14@16c.; mixed, 12@13c.; dark, 10@11c. Extracted, white, 9@9½c.; mixed, 7½@8c.; dark, 7@7½c. Beeswax, 28@30c. H. R. W.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line**, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

R. A. BURNETT & Co., 161 South Water Street.
J. A. LAMON, 44 & 46 South Water Street

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN, 28 & 30 West Broadway.

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & Co., 14 & 16 Hennepin Avenue

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.
CLEMONS-MASON COM. Co., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

Almost Every Bee-Book that is now published we mention on the third page of this issue of the BEE JOURNAL. Look over the list and select what you want. For every new yearly subscriber that you secure for us at $1.00, we will allow you 25 cents, to apply on the purchase of any book we have for sale. This is a rare chance to get some valuable apicultural reading-matter, and at the same time aid in spreading helpful apiarian knowledge among your friends.

Advertisements.

Texas Reared Queens,

BRED for Business and Beauty. I make Queen-Breeding a specialty. Either 3 or 5 Banded—March, April and May—Untested, $1.00; Tested, $1.50. After May, Untested, 75 cents; Tested, $1.00. **Imported Queens** reasonable. Send for Price-List—Free. Satisfaction guaranteed. Remit by P. O. Money Order or Registered Letter. **W. H. WHITE,**
13A4t DEPORT, Lamar Co., TEX.
WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

Seed Corn

Early Dent White, Very Productive—often maturing 90 bu. of sound corn in 90 days. Ears perfect in shape. Planted June 18, 1892, and made a good crop. Price, $1.25 per bushel on board cars here. Bags free. Send 2c. stamp for samples and circulars. **J. R. ESKEW,**
13A Box 336, SHENANDOAH, IOWA.

Mention the American Bee Journal.